

Patterns Exit Quiz

Multiple Choice

1. Find the next two numbers in the number pattern. 2, 4, 8

- a.) 24, 32
- b.) 10, 12
- c.) 16, 32
- d.) 16, 48

2. The common ratio in the number pattern $\frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \dots$ is:

- a.) 2
- b.) 1
- c.) $\frac{1}{2}$
- d.) $\frac{1}{4}$

3. The common difference in the number pattern $-2, -5, -8, \dots$ is:

- a.) 3
- b.) -13
- c.) -10
- d.) -3

4. Find the rule for the following pattern.

0, 5, 10, 15, 20, 25, 30

n	1	2	3	4	5	6	7
	0	5	10	15	20	25	30

5. Fill in the missing numbers.

The rule for the pattern shown is $\div 3$.

81, _____, _____, _____, 1, _____

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ANSWERS

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a.) 24, 32

b.) 10, 12

c.) **16, 32**

d.) 16, 48

2. The common ratio in the number pattern $\frac{1}{2}, \frac{1}{4}, \frac{1}{8} \dots \dots \dots$ is:

a.) 2

b.) 1

c.) **$\frac{1}{2}$**

d.) $\frac{1}{4}$

3. The common difference in the number pattern $-2, -5, -8 \dots \dots \dots$ is:

a.) 3

b.) -13

c.) -10

d.) **-3**

4. Find the rule for the following pattern.

0, 5, 10, 15, 20, 25, 30

n	1	2	3	4	5	6	7
$5n$	5	10	15	20	25	30	35
$5n - 5$	0	5	10	15	20	25	30

$* 5$

+5 +5 +5 +5 +5 +5

The difference between successive values is always 5,
The rule is of the form $5n - 5$

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5. Fill in the missing numbers.

The rule for the pattern shown is $\div 3$.

81, _____, _____, _____, 1, _____

$$81 \div 3 = 27$$

$$27 \div 3 = 9$$

$$9 \div 3 = 3$$

$$3 \div 3 = 1$$

$$1 \div 3 = \frac{1}{3}$$

81, 27, 9, 3, 1, $\frac{1}{3}$